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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/548,906	04/13/2000	Brian Mitchell Bass	RAL9-99-0127	7471

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EXAMINER	
NG, CHRISTINE Y	
ART UNIT	**PAPER NUMBER**
2663	

DATE MAILED: 08/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/548,906	Applicant(s) BASS ET AL.	
	Examiner Christine Ng	Art Unit 2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 April 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-4* is/are allowed.

6)☒ Claim(s) *5 and 6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 April 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Drawings

1. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,188,690 to Holden et al in view of U.S. Patent No. 6,185,206 to Nichols et al. Holden et al disclose a method for ATM communications that generates multiple output messages for a single input message (multicasting). The method provides N processing units (switching elements or SEs) where N>1 (Figure 1, Element 150). Using the input routing tables (Figure 1, Element 120), the system assigns each input information unit (ATM cell) to one of the N processing units (SE) for processing. Refer to Column 4, lines 36-41. Furthermore, the system processes each input information unit (ATM cell) to create an output information unit (ATM cell) at one of the N processing units (SE) to send to the output routing tables (Figure 1, Element 170). Refer to Column

6, lines 53-60. The SE also does processing to determine whether the input information unit (ATM cell) is to be a unicast message addressed to one recipient or a multicast message addressed to a plurality of recipients. In Figure 3, cells enter the SE through phase aligners and the elastic buffer (Element 202). Unicast cells are sent to a unicast routing path (Element 210) while multicast cells are sent for routing to a multicast path (Element 220). Refer to Column 6, lines 65-67 to Column 7, lines 1-4. Holden et al do not include a multicast indicator and an indication that the output information unit is the last multicast message for an input information unit. Nichols et al discloses an ATM switch with a method for enqueuing and dequeuing multicast cells. Nichols et al disclose a multicast indicator (enqueue multicast bit) used to indicate whether an output information unit (ATM cell) is part of a multicast message. Refer to Column 3, lines 60-64. If the multicast indicator (enqueue multicast bit) indicates the output information unit (ATM cell) is part of a multicast message, the dequeue operator (Figure 3, Element 308) determines whether the output information unit is the last multicast message for a given input information unit by checking the cell count value. Refer to Column 4, lines 21-24. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a multicast indicator and an indication that the output information unit is the last multicast message for an input information unit in order to keep a multicasting cell count (Column 3, lines 15-17).

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable by U.S. Patent No. 6,188,690 to Holden et al in view of U.S. Patent No. 4,813,038 to Lee. Holden et al disclose a method for multicasting messages in a distributed information processing

system for ATM communications. The system includes associating a label field (multicast tag) with each message (ATM cell) based on the dataflow and adding blank bits (timestamp or TS) to the label field (multicast tag) to uniquely identify each multicast message from the same dataflow. Refer to Column 8, lines 65-67 to Column 9, lines 1-6. In Figure 3, Holden et al show how the system determines whether a message is a multicast message. Cells enter the switching element through phase aligners and the elastic buffer (Element 202). Unicast cells are sent to a unicast routing path (Element 210) while multicast cells are sent for routing to a multicast path (Element 220). Refer to Column 6, lines 65-67 to Column 7, lines 1-4. Finally, the system increments the blank bit portion (TS) of the label field (multicast tag) to distinguish each multicast message from other messages from the same multicast message. Whenever a MC cell is placed into a MC cell buffer, it will be assigned a TS of 0. The SE then examines all pre-existing TSs starting from the newest possible time (0) until it finds a TS not used. Then all TS values below that number are incremented by one. Each multicast message is thus distinguished from other messages from the same multicast message by a timestamp. Refer to Column 8, lines 49-57. Holden et al do not include that when subsequent occurrences of a multicast message appear, it is assigned to the same processor. In Figure 1, Lee shows a multicast packet switch with a copy network (Element 3) and a point-to-point routing network (Element 5). The copy network (Element 3) replicates input units from a source and then copies of the packets are assigned to the same processor (point-to-point routing network) to be routed to their final destinations. Therefore, it would have been obvious to one of ordinary skill in the

art at the time the invention was made to include that subsequent occurrences of a multicast message are assigned to the same processor in order to route messages of the same multicast transmission to their destinations.

Allowable Subject Matter

5. Claims 1-4 are allowed.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,247,059 to Johnson et al.

U.S. Patent No. 6,434,117 to Momona.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Ng whose telephone number is (703) 305-8395. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nguyen Chau can be reached on (703) 308-5340. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-8395.

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

C. Ng
August 21, 2003